Experimental Climate Monitoring and Prediction

by: Prabodha Agalawatte, Sewwandhi Chandrasekara, Zeenas Yahiya, Lareef Zubair and Michael Bell (FECT and IRI[1])

4 September 2014

FECT BLOG

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http://www.climate.lkand
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21 August, 2014
PACIFIC SEAS STATE

During July through early-August the observed ENSO conditions were neutral. Most of the ENSO prediction models indicate warming to El Niño levels coming around early northern fall, peaking at weak strength during winter 2014-15 and lasting into the first few months of 2015.

(Text Courtesy IRI)

INDIAN OCEAN STATE

Around 1^0 C above average sea surface temperature was observed around Sri Lanka.

MJO STATE

MJO is at phase 3 in the Indian Ocean and shall enhance rainfall conditions in Sri Lanka

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Highlights
Monitoring and Predictions:

Below average rainfall was observed in the entirety of the country during the month of July, however during August, the precipitation observed over Sri Lanka was above average. Ratnapura district received highest amount of rainfall during August. But in the past week rainfall conditions in Sri Lanka once again was observed to be dry compared to the week before. The only significant rainfall event recorded this week was observed in the sea west of Puttalam.

Summary
Monitoring

Weekly Monitoring: During 26th to 29th August no rainfall was observed in the country save for some light rainfall observed throughout the country. On the 30th and 31st of August rainfall up to 20 mm was observed in western and south-western regions of Sri Lanka and the nearby sea. This rainfall increased on the 1st of September with heavy rainfall up to 120 mm observed in the sea west of Puttalam. Rainfall up to 40 mm was observed in the coastal region near Puttalam and coastal regions of Gampaha, Colombo and Kalutara also received rainfall up to 20 mm on the same day.

Monthly Monitoring: An above average rainfall was observed throughout the country with higher precipitation observed in the south-western regions of Sri Lanka during August. Highest rainfall during this month was observed in Ratnapura district.

Predictions
14 day prediction: Up to 75 mm rainfall is expected in South-Western and southern Sri Lanka during 3rd -16th September.

IMD WRF &IRI Model Forecast: According to the IMD WRF model western coastal region and eastern region of Sri Lanka shall receive up to 7.5 mm of rainfall on the 5th of September. On the 6th rainfall increase in the west up to 35 mm while expanding inward. IRI models predict up to 50 mm of cumulative precipitation for the six days starting from 3rd of September in south-western and central regions and in the Jaffna peninsula. Unusually high rainfall events are not expected during these 6 days.

Seasonal Prediction As per IRI Multi Model Probability Forecast issued in August for the season September to November 2014, Rainfall shall remain climatological while the temperature shall be above normal with 60- 70% probability.

Inside this Issue
1. **Monitoring**
   a. Daily Satellite Derived Rain fall Estimates
   b. Monthly Rain fall Estimates
   c. Decadal (10 Day) Satellite Derived Rainfall Estimates
   d. Weekly Average SST Anomalies
2. **Predictions**
   a. NCEP GFS Ensemble 1-14 day predictions
   b. WRF model forecast Regional Meteorological Center, Chennai, Indian Meteorological Department)
   c. Weekly precipitation forecast (IRI)
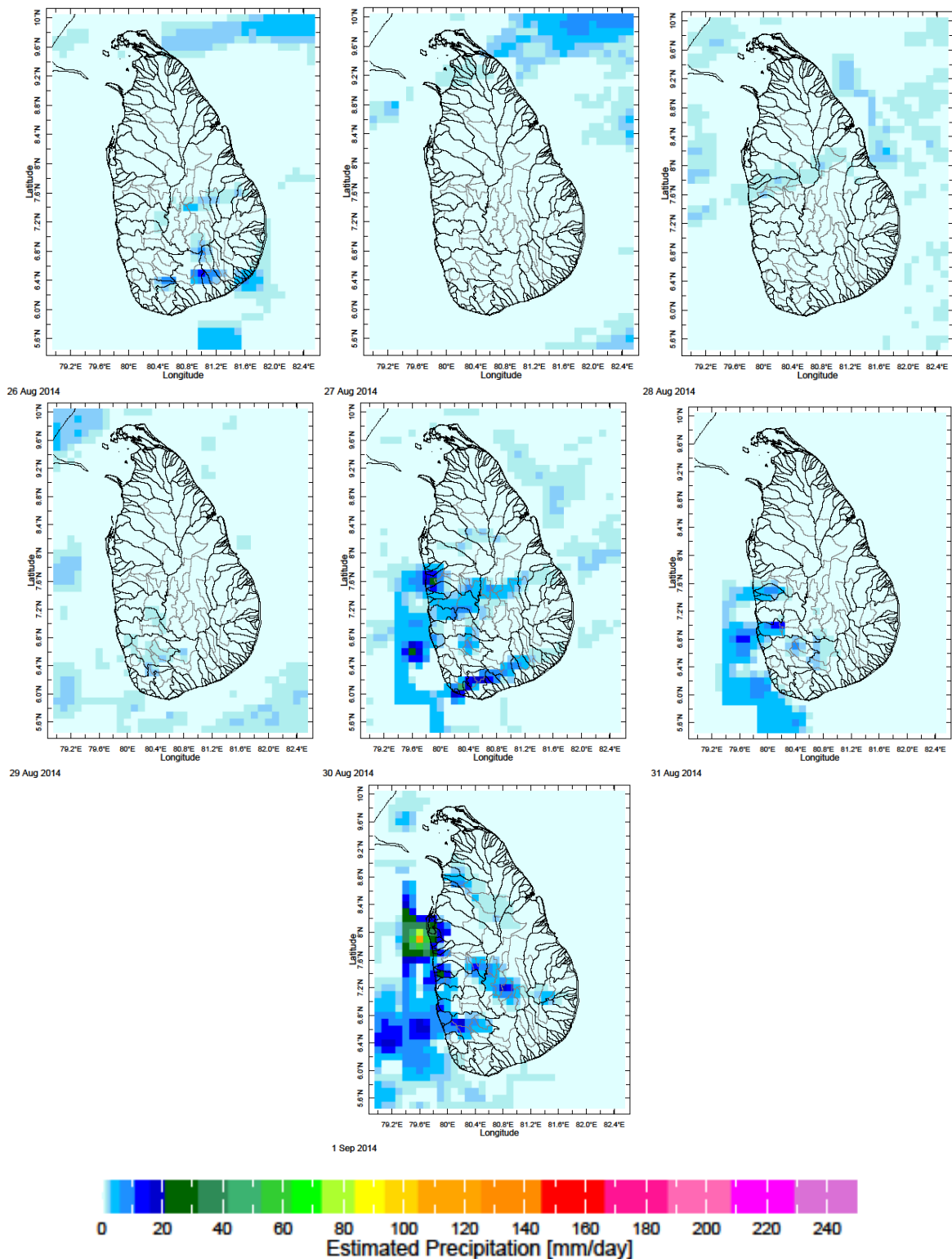   d. Seasonal Predictions from IRI

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1. Monitoring

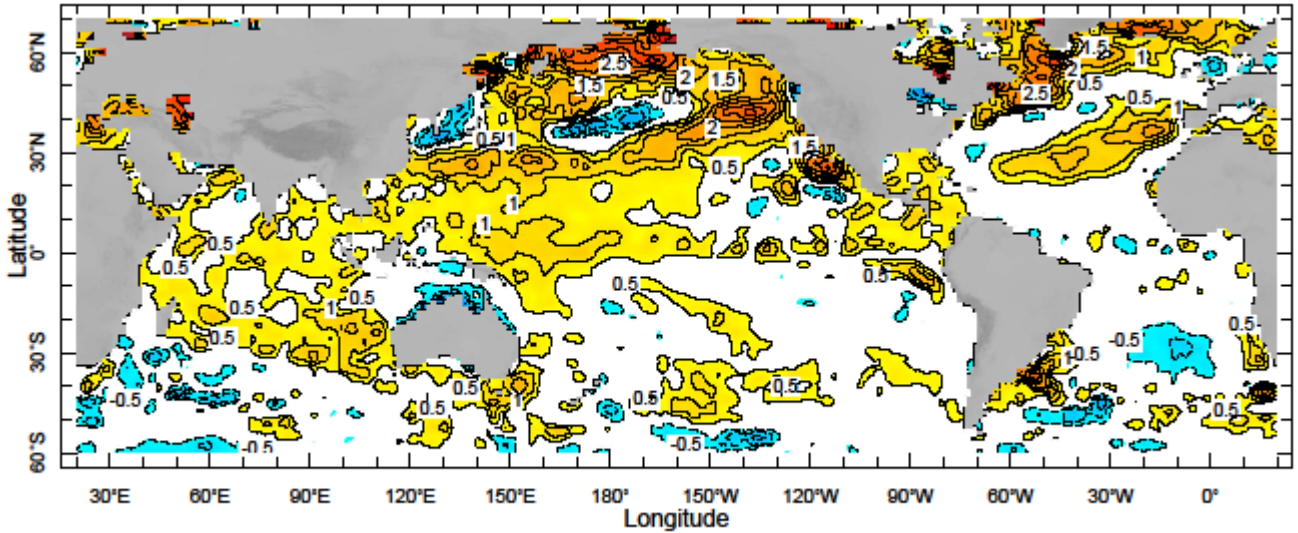a) *Daily Satellite Derived Rainfall Estimate* Maps: 26th August to 1st September *2014 (Left-Right, Top-Bottom)*

26 Aug 2014   27 Aug 2014   28 Aug 2014

29 Aug 2014   30 Aug 2014   31 Aug 2014

1 Sep 2014

FECT Foundation for Environment
Climate and Technology

c/o, Maintenance Office, Mahaweli Authority,
Digana Village, Rajawella, Sri Lanka.

Phone (+94) 81-2376746, 4922992   E-mail climate@sltnet.lk   Web Site   http://www.climate.lk

b) Monthly Satellite Derived Rainfall Estimates for August 2014 (Average – Left and Anomaly - Right)
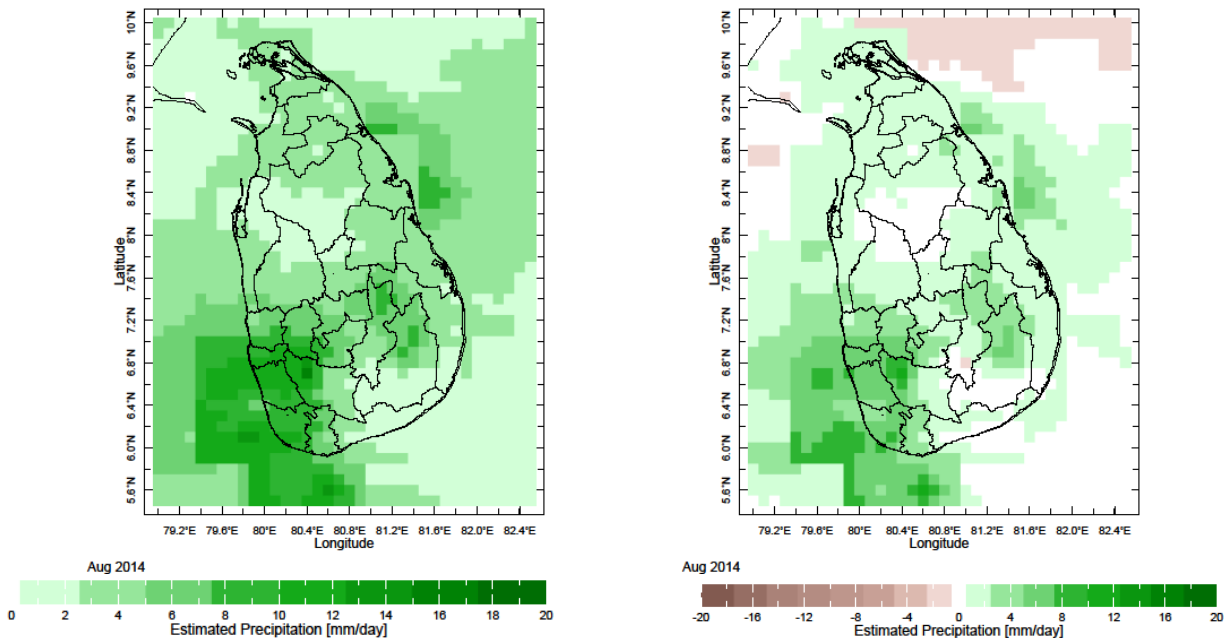
c) Dekadal (10 Day) Satellite Derived Rainfall Estimates (11- 20 and 21-31 Aug, 2014)

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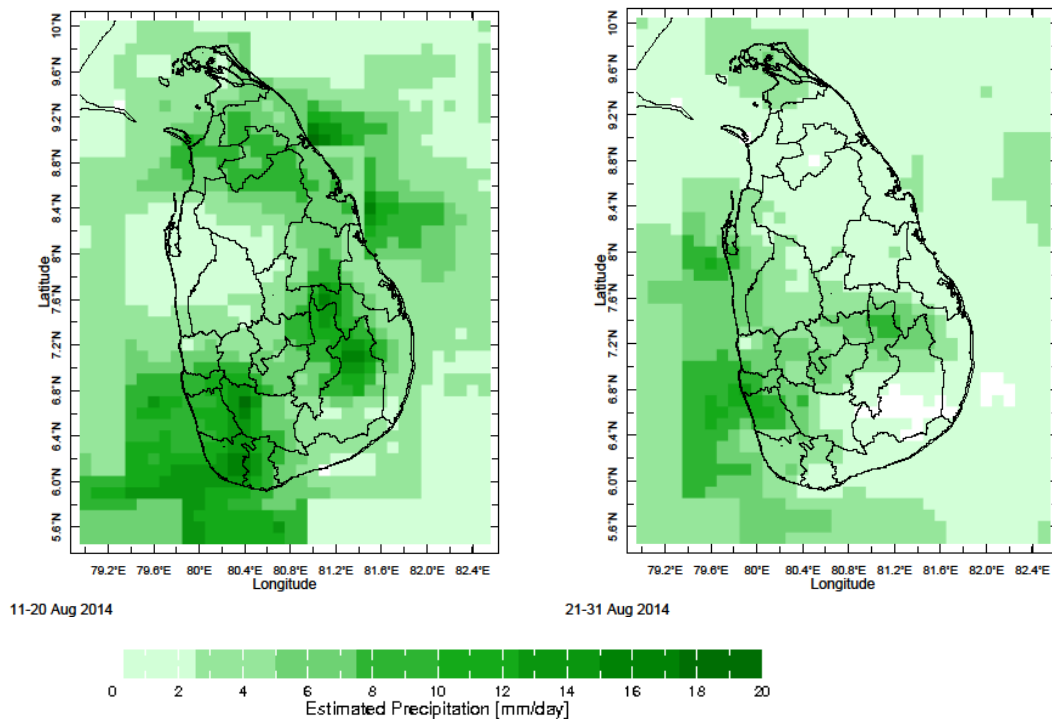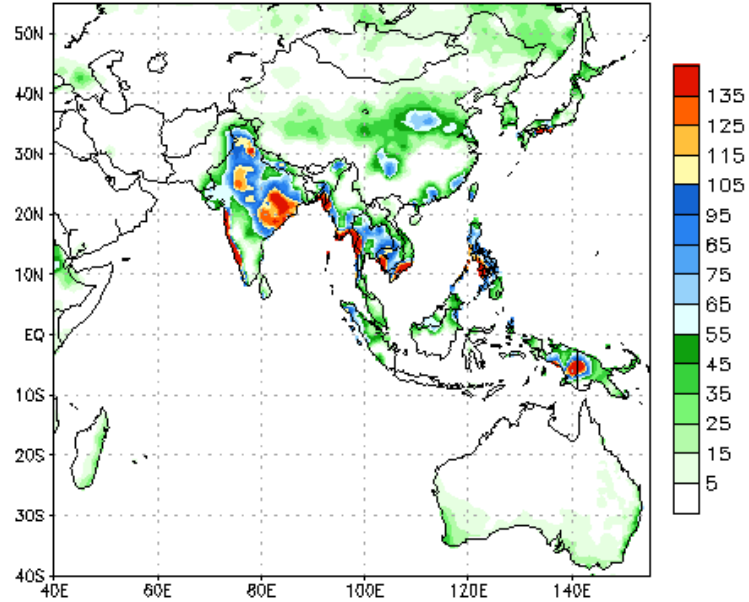
d) Weekly Average SST Anomalies

24-30 Aug 2014
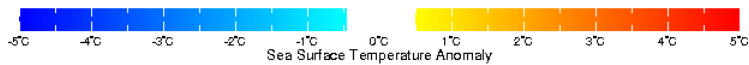
Weekly Average SST Anomalies (^{0}C), 24th – 30th August, 2014

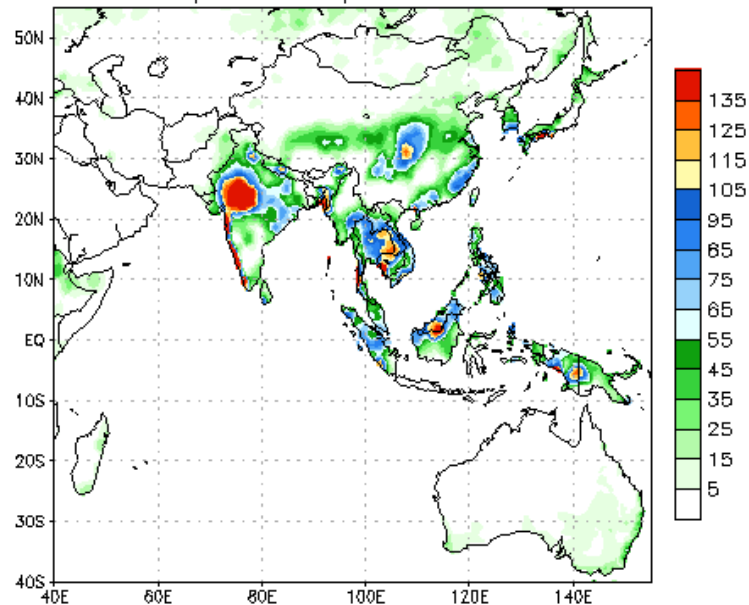**Data Source: NCEP Environmental monitoring center (Climatology 1971-2000)**

2. Predictions

a) NCEP GFS Ensemble 1-14 day predictions, NOAA, Climate Prediction Centre, USA.

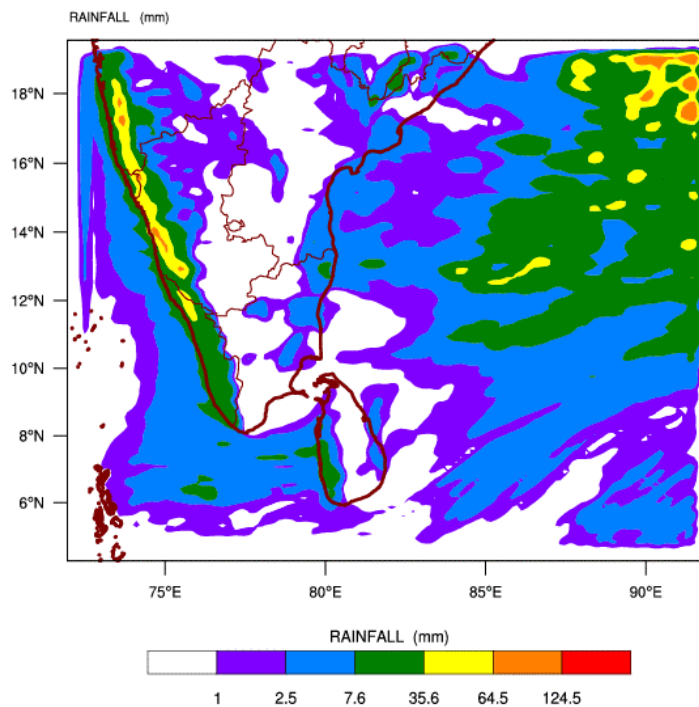**Source – NOAA Climate Prediction Center**

b) WRF model forecast from Regional Meteorological Center, Chennai of Indian Meteorological **Department**

WRF MODEL FORECAST (48 HR.) RAINFALL(mm)\
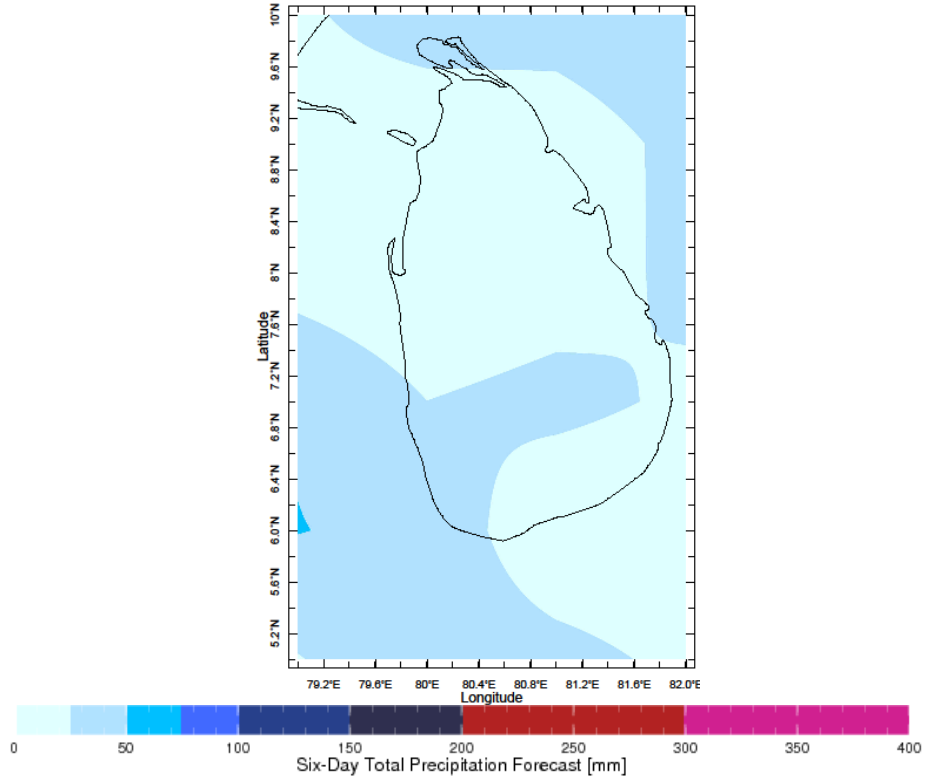based on 00 UTC of 03-09-2014 valid for 03 UTC of 05-09-2014
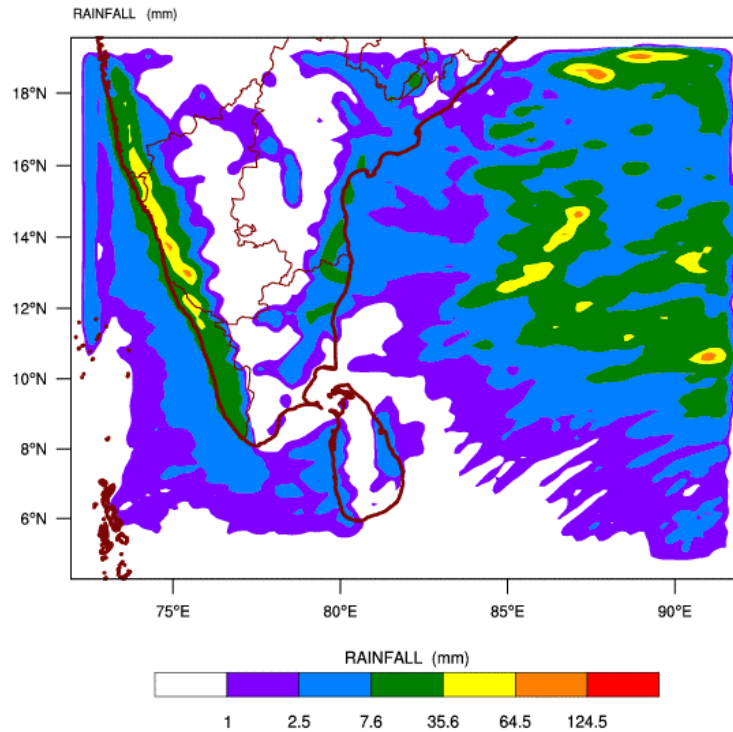
WRF MODEL FORECAST (72 HR.) RAINFALL(mm)\
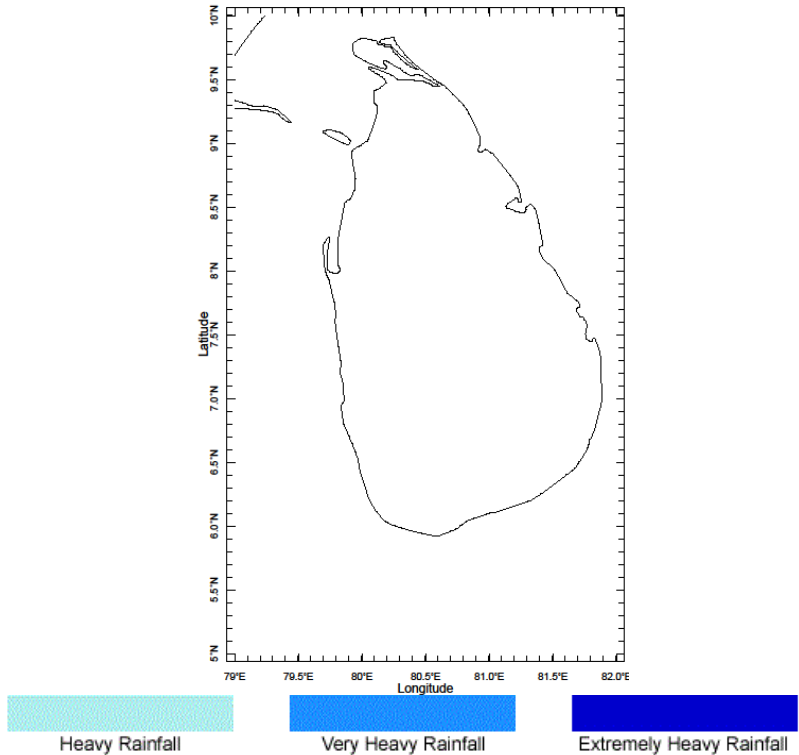based on 00 UTC of 03-09-2014 valid for 03 UTC of 06-09-2014

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c) Weekly Precipitation Forecast for 3rd -8th 2014 (Precipitation Forecast in Context Map Tool, IRI)

Forecast for 3-8 Sep 2014 Issued 0000 3 Sep 2014

Six-Day Total Precipitation Forecast [mm]

Forecast for 3-8 Sep 2014 Issued 0000 3 Sep 2014

Heavy Rainfall   Very Heavy Rainfall   Extremely Heavy Rainfall

e) Seasonal Rainfall and Temperature Predictions from IRI

IRI Multi-Model Probability Forecast for Precipitation for September-October-November 2014, Issued August 2014
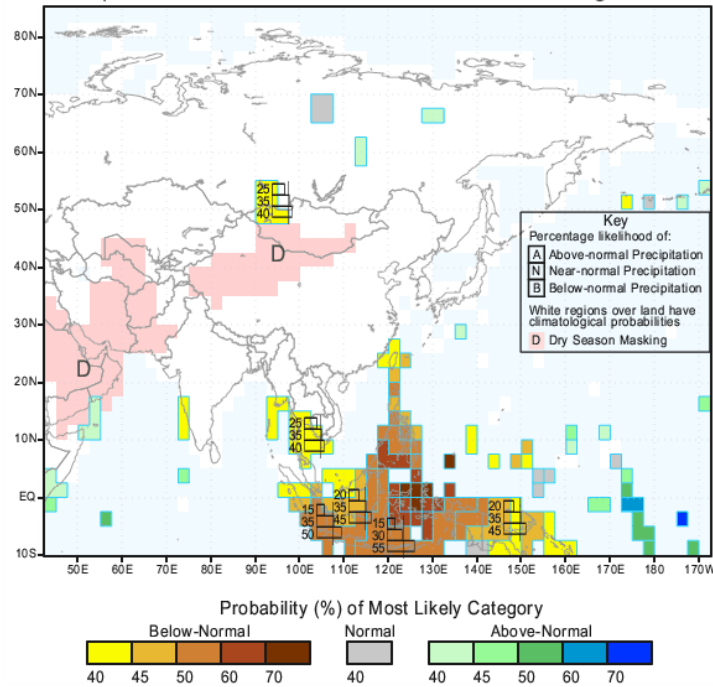
IRI Multi-Model Probability Forecast for Temperature for September-October-November 2014, Issued August 2014